SASKATOON LIGHT & POWER

2010 Annual Report

City of Saskatoon

The mandate of Saskatoon Light & Power (SL&P) is to provide safe, reliable, and cost effective electricity in an environmentally responsible way to the 59,000 properties within the City's franchise area. To minimize the length of customer outages, SL&P focuses on system maintenance and emphasis continues to be placed on staff training and safety. Our infrastructure is well maintained and provides a high level of service to customers, with system reliability indices that compare well with other utilities across Canada.

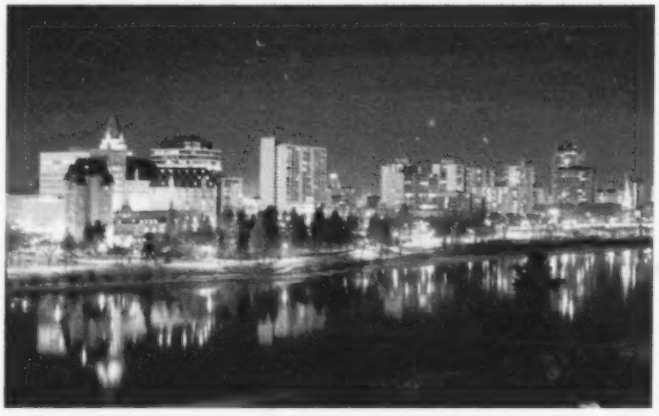
Saskatoon Light & Power - Operations Centre

SL&P has been debt-free since the early 1970s and contributes significantly to Saskatoon's general revenue through a Grant in Lieu of taxes and a Return on Investment (R.O.I.).

Saskatoon's local economy also benefits directly by the materials, supplies and services purchased by the Utility.

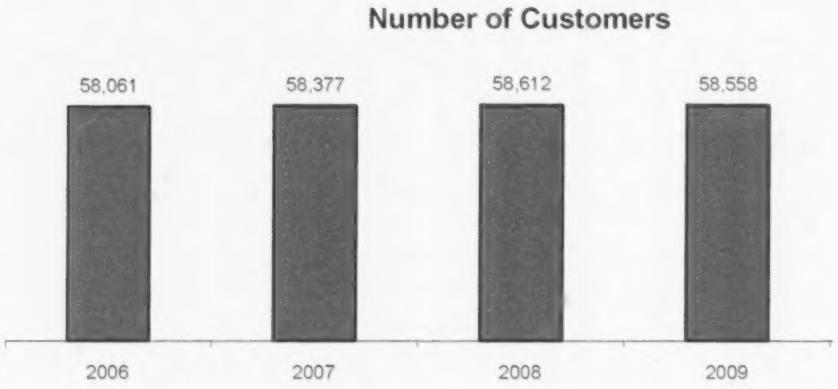
OUR CUSTOMER

Customers Served

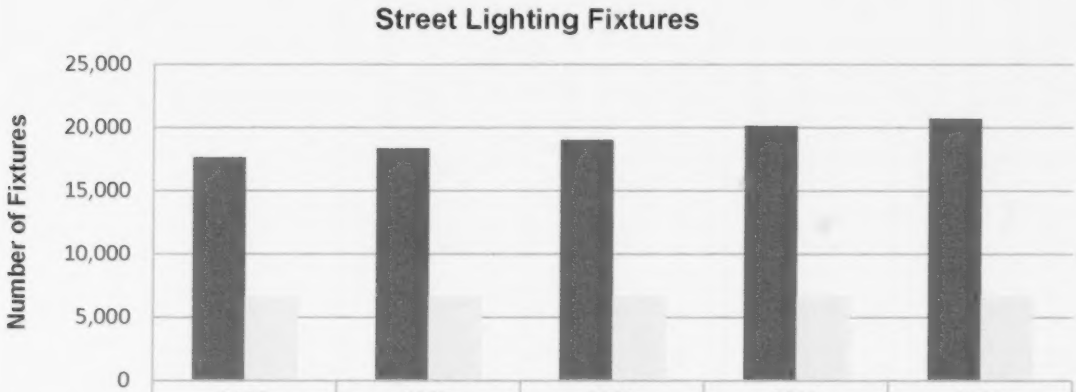


Provincial legislation limits SL&P's franchise area to the 1958 city boundaries and consists of approximately two-thirds of the city today. SaskPower serves customers outside the SL&P franchise. (Refer to map on Page 26.)

The average number of customers served in 2010 was 58,776, consisting of 52,508 residential customers and 6,268 commercial customers.

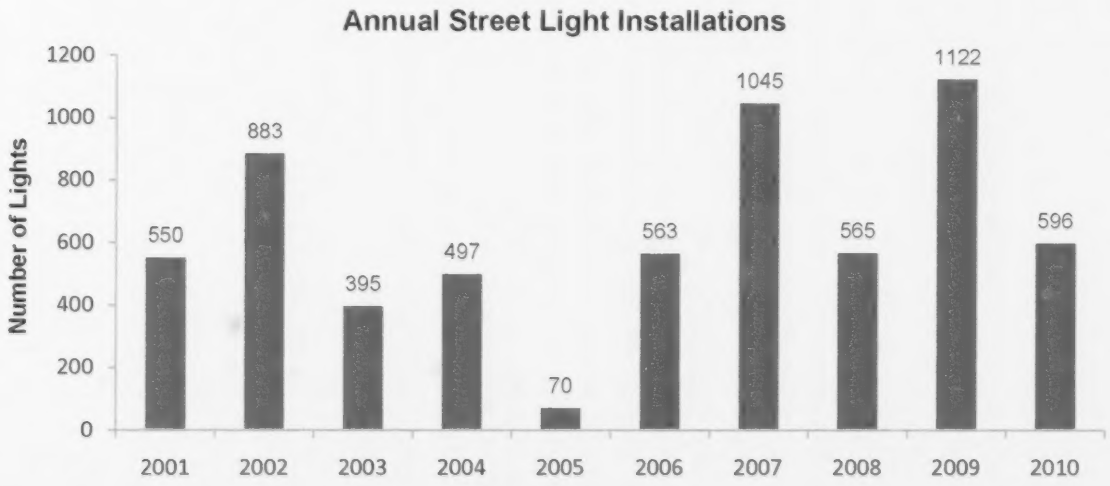


SL&P maintains 75% of the 27,326 street lighting fixtures in Saskatoon and SaskPower maintains the remaining 25%. In addition, SL&P installs, removes, and stores the City's 458 Christmas lighting decorations each winter.

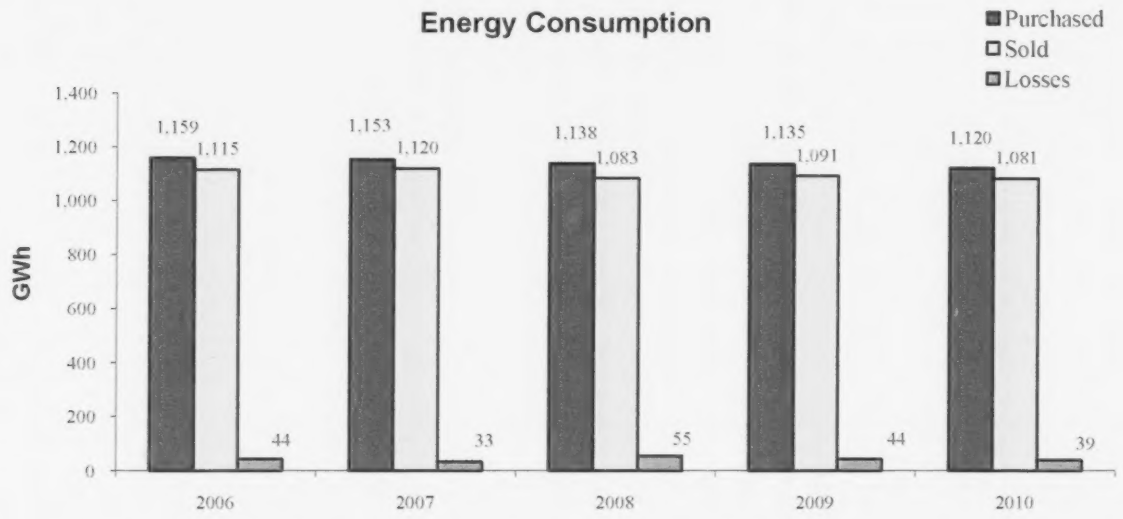


	2006	2007	2008	2009	2010
SL&P	17,613	18,309	18,966	20,088	20,684
SaskPower	6,631	6,607	6,627	6,632	6,642

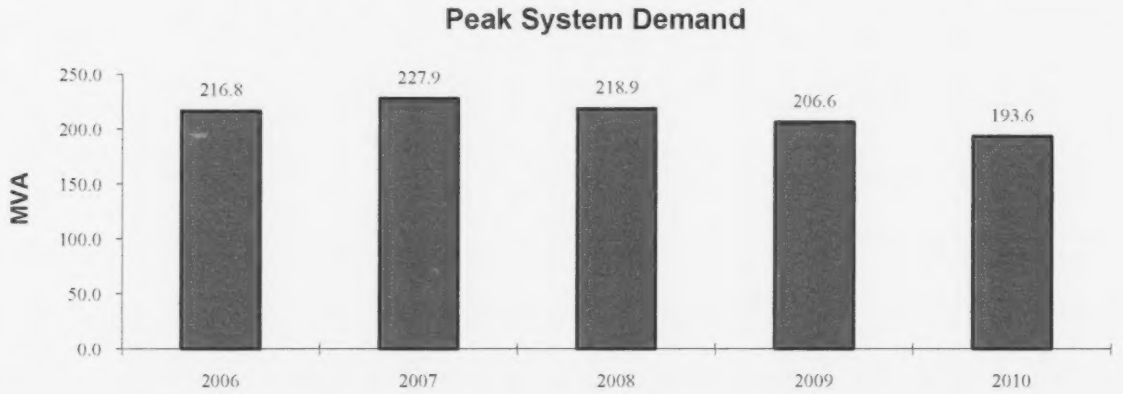
Over the past 10 years, street light installations have increased dramatically as Saskatoon's land development activity accelerated. The chart below shows the number of street lights installed by SL&P annually during this time. In 2004, City Council directed SL&P to take responsibility for all new street lighting projects in the city. Prior to 2004, SaskPower had been installing the street lights in those areas outside of our franchise area. The increase in land development activity combined with the expanded mandate of SL&P has had a significant impact on our operations. The five year average from 2001 to 2005 was 479 lights. The five year average from 2006 to 2010 was 778 lights. This is an increase of 62%.



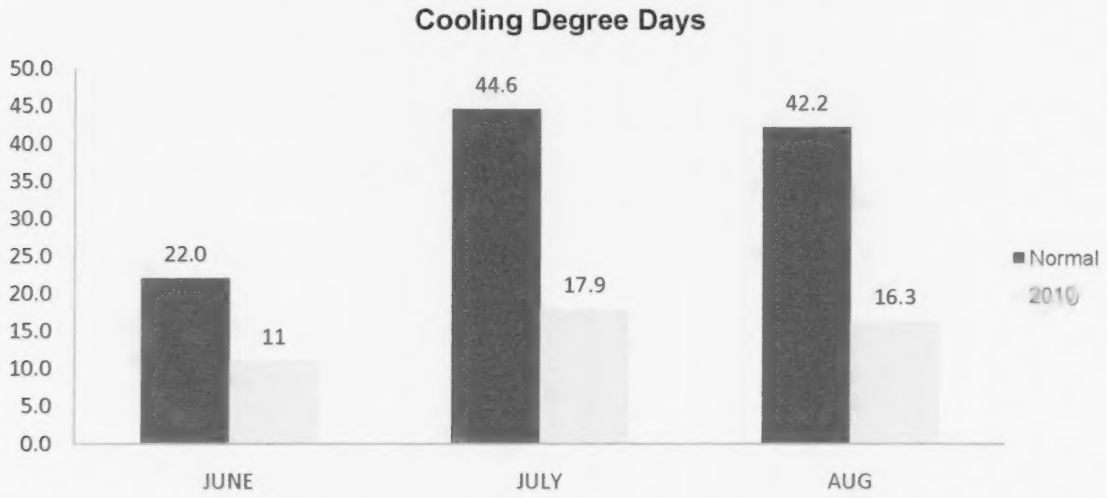
Energy sales in 2010 were 1,081.2 GWh, which is 0.9% less than in 2009. The decline in energy sales is primarily due to the loss of a few large customers. Electricity is utilized by our residential customers for numerous household requirements. Commercial customers include retail businesses, offices, schools, hospitals, recreation facilities, food processing and manufacturing, all of which require electricity to power their operations.



The 2010 system peak load of 193.6 MVA occurred in July 2010. It was 15.1% less than the all-time peak of 227.9 MVA, which occurred during the summer of 2007. Unusually cool weather in the summer of 2010, coupled with the loss of some large customers, resulted in the lower peak demand.



The following chart compares 2010 summer cooling degree days to normal (1981-2010 average). This indicates the number of days when the ambient air temperature rose to the point where most customers would be inclined to begin using their air conditioners. Air conditioning electrical load is correlated to this weather statistic, and helps explain last summer's reduction in load.



Competitive Rates

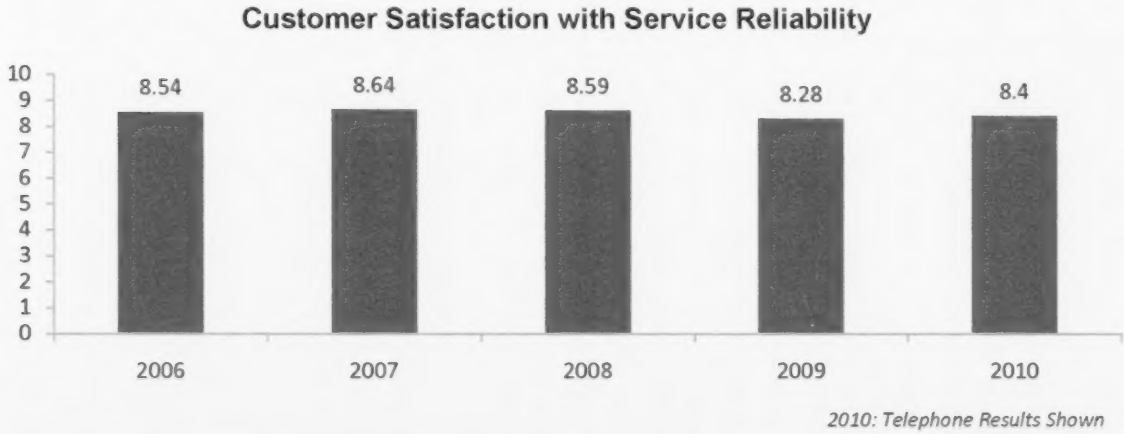
Saskatoon's policy is to match SaskPower utility rates so that all residences pay the same power bill whether served by SaskPower or SL&P. Because of this policy, Saskatoon and Regina rates and electrical bills are the same. On August 1, 2010, SaskPower rates increased an average of 4.5%.

The following chart compares monthly electrical bills for residential customers. The bills are from a SaskPower survey and are effective January 1, 2010, however, Saskatoon and Regina bills reflect the August rate increase. A typical residential monthly bill is just under $91 in Saskatoon and Regina. These billings include rate riders and rebates and do not include federal, provincial, or municipal surcharges and franchise fees.

Reliability

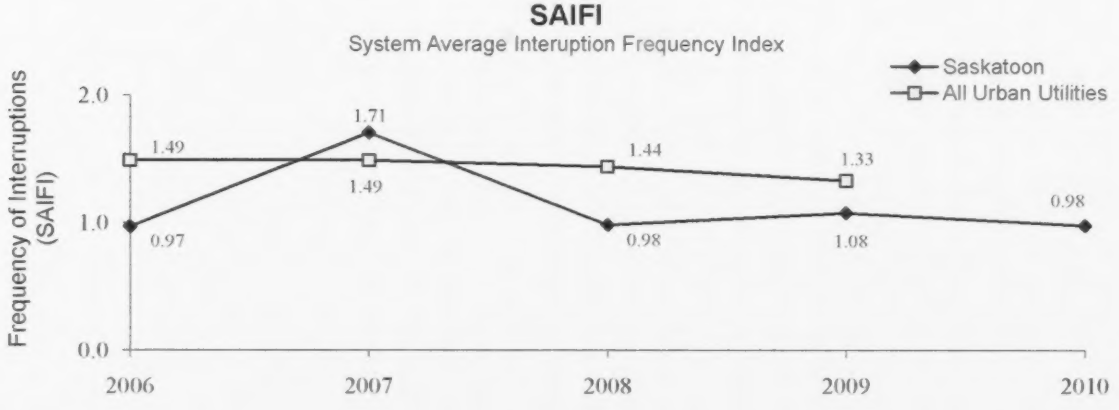
"SL&P is committed to timely, friendly, and professional service. Our customers are treated in a fair and equitable manner."

The City of Saskatoon's Annual Civic Survey for 2010 showed that the reliability of the electrical service is still very important to the residents of Saskatoon. In the same survey, the residents indicated that they were very satisfied with the reliability of the service delivered by Saskatoon Light & Power. A score of 10 means "excellent" and 5 means "average". In 2010, citizens indicated a satisfaction level of 8.4 for electrical service reliability.

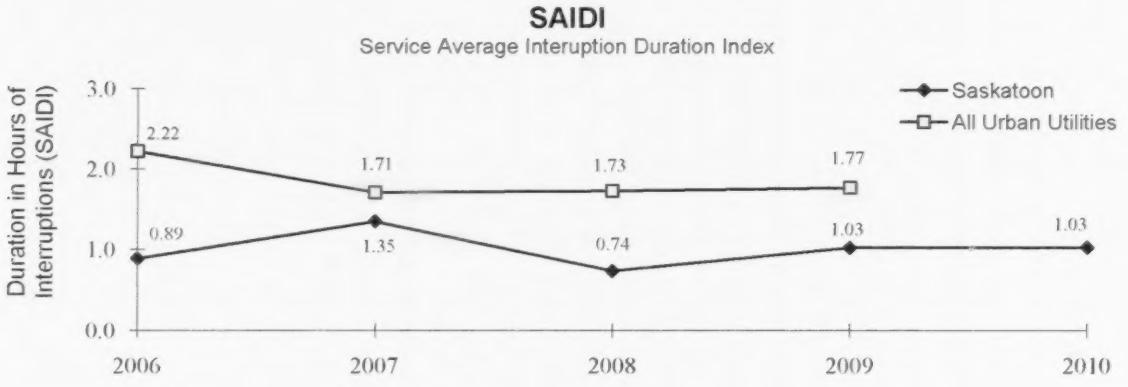


SL&P's reliability is 99.99% with only 118 outage hours per one million customer hours. Customers on average had only one annual outage and their power was back on within one hour. The reliability of SL&P compares very favourably with other Canadian urban electric utilities. The result of the comparative survey by the Canadian Electricity Association is shown in the following graphs. 2010 industry information was not available at the time of this report.

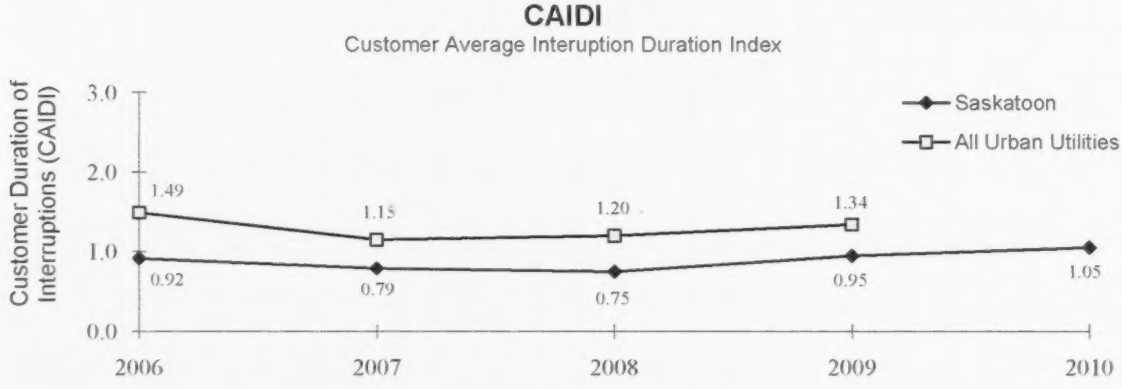
The System Average Interruption Frequency Index (SAIFI) identifies the average number of interruptions per customer served per year. In 2010, SL&P customers on average experienced less than one outage, which is less than the all urban utility average of 1.33 for the year before.



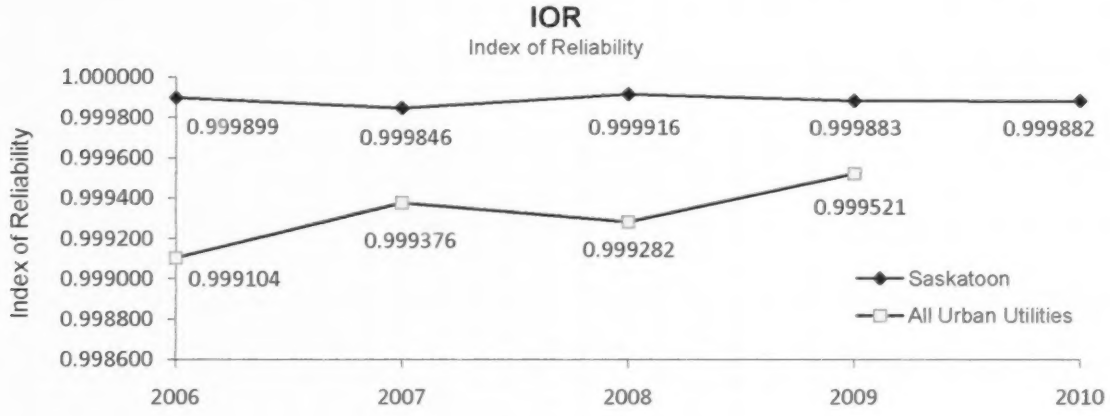
The System Average Interruption Duration Index (SAIDI) defines the average duration of outages per customer per year. In 2010, SL&P customers on average experienced slightly over one hour of interruptions, which is less than the all urban utility average of 1.77 hours for the year before.



The Customer Average Interruption Duration Index (CAIDI) is the average duration of outages experienced by customers during the year. In 2010, SL&P customers on average had their power restored in just over an hour, which is less than the all urban utility average of 1.34 hours for the year before.



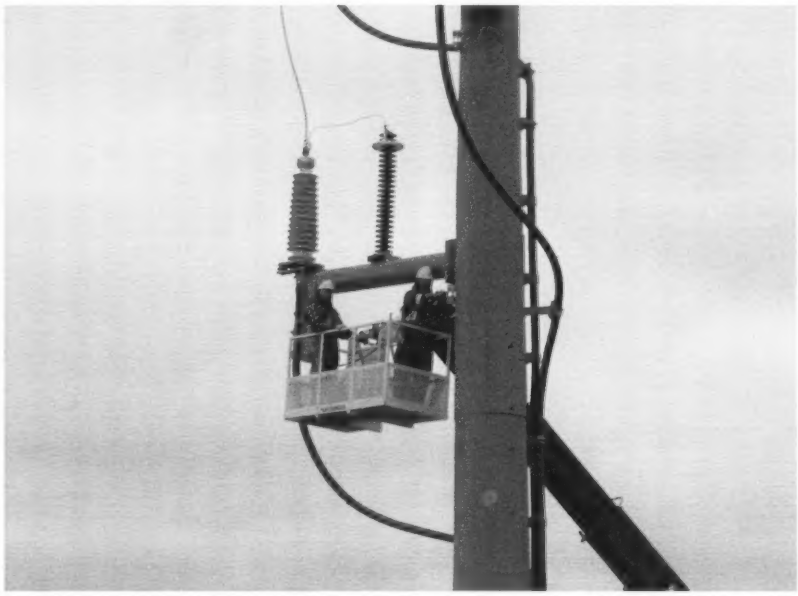
The Index of Reliability (IOR) is a 'per unit' measure of the availability of service to customers on an annual basis. In 2010, SL&P's index of reliability was 0.999882, which is better than the all urban utility average of 0.999798 for the year before. This indicates that our power supply is very reliable.



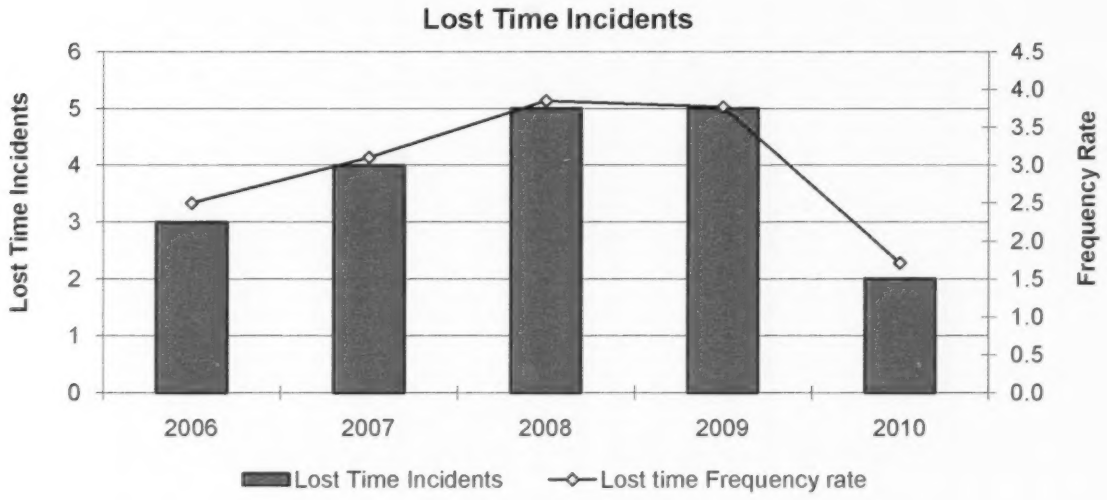
OUR PEOPLE

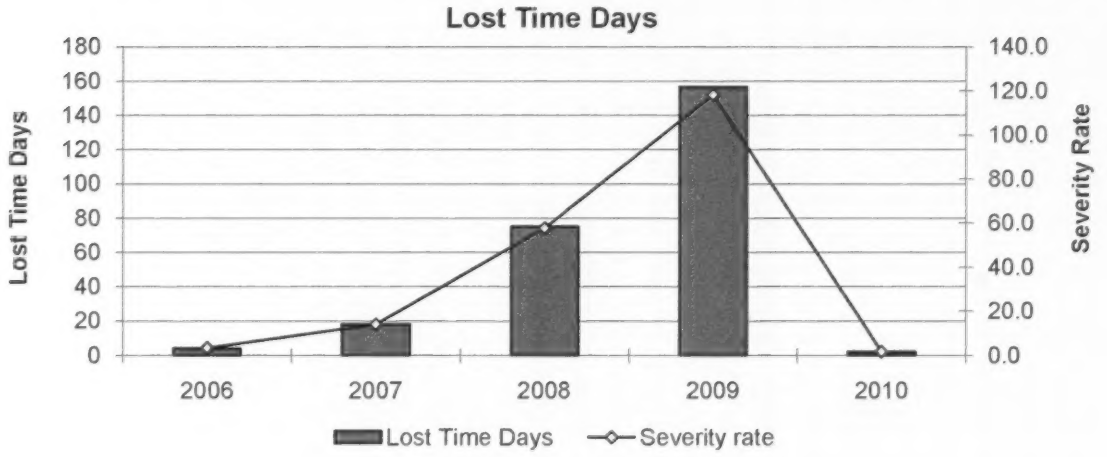
Employee Safety:

"SL&P provides its employees with a positive and safe environment, where their contributions are appreciated."

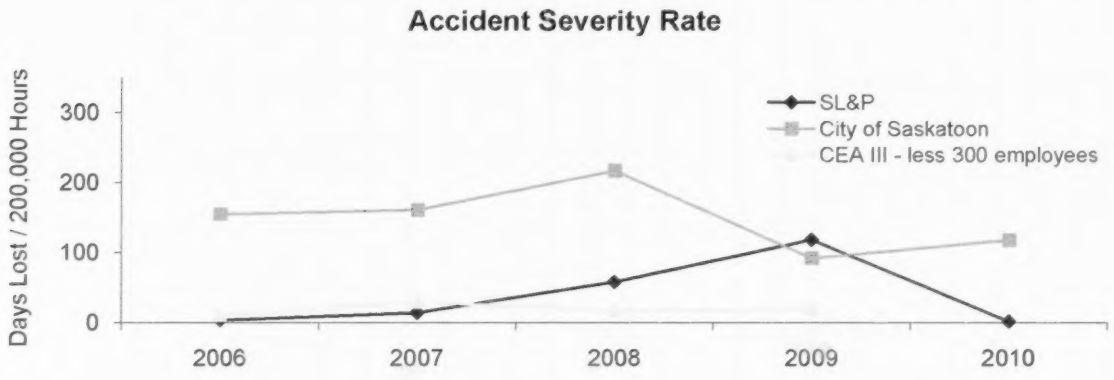


In 2010, the Utility experienced two lost-time incidents for a total of two lost-time days. By comparison, SL&P's goal was for less than 8 lost-time days.





Saskatoon Light & Power participates in benchmarking studies with the Canadian Electricity Association (CEA). The severity rate is the performance measure that is used to track employees lost-time days due to accidents relative to total employee hours worked. SL&P's severity rate for 2010 was 1.7 based on two lost time days and 234,524 hours worked. The Utility's 2011 goal is for zero lost time days. By comparison, the CEA five-year average severity rate for utilities with less than 300 employees is approximately 21 lost-time days when normalized to 200,000 hours worked. After two years of above industry average severity rates, SL&P has once again improved to fall below the CEA average.



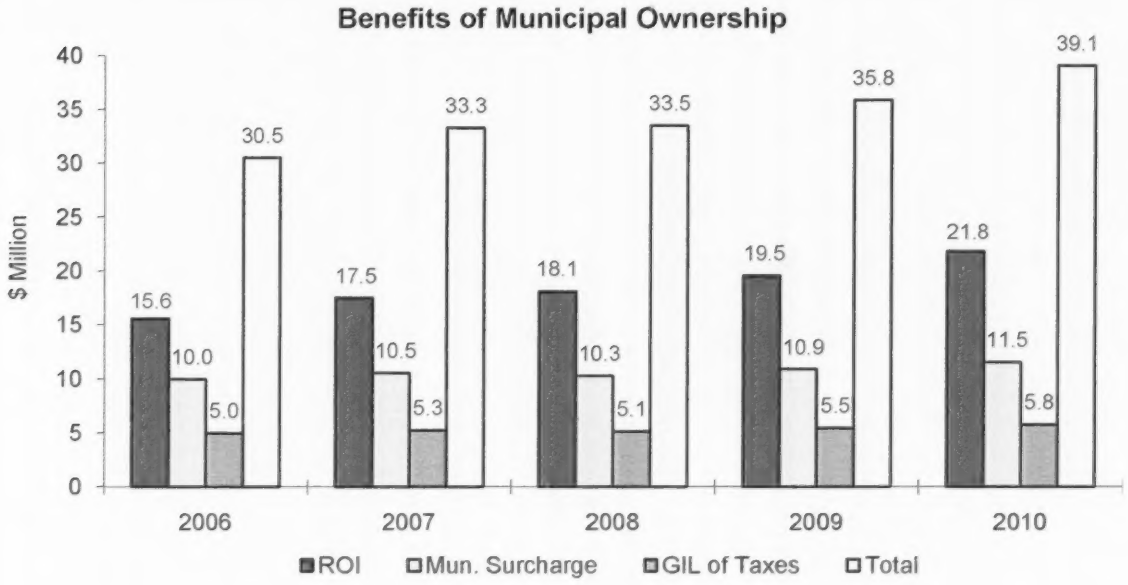
OUR FINANCES

Revenues Contributed to the City of Saskatoon

The funds contributed to the City of Saskatoon as a result of owning an electrical utility benefit all residents by reducing annual taxes for property owners and allowing City Council to provide enhanced services.

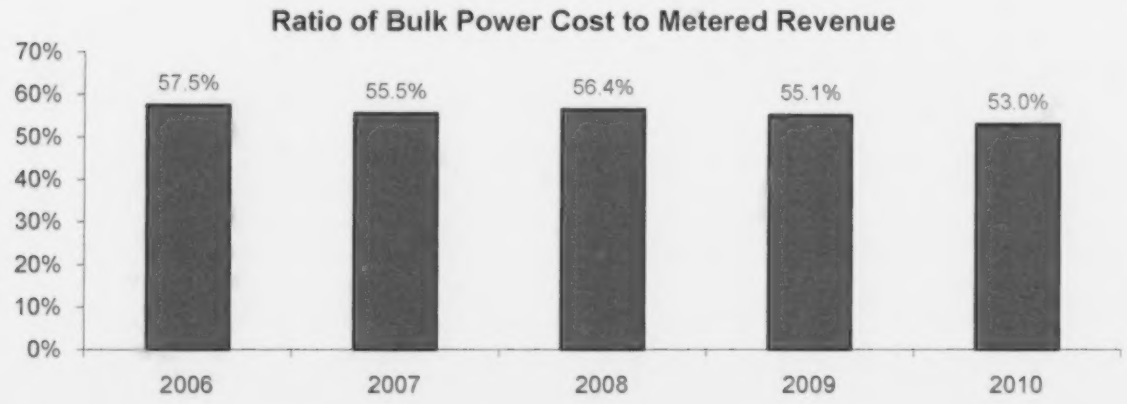
SL&P provided a significant Return on Investment (ROI) in 2010 in the amount of $21,780,000 to the City of Saskatoon, which was 9.1% more than the year before. In addition, SL&P transferred $17,280,000 in grants-in-lieu of taxes to the City's General Revenues account. This amount includes the amount collected in lieu of the municipal surcharge. Grants-in-lieu of taxes are a percentage of metered revenue and are equivalent to what SaskPower pays the City in their franchise area.

The total benefit to the City of Saskatoon from SL&P was $39,060,000. This was an increase of over 9.2% from 2009. The increase the previous year had been 6.9% which makes a overall two year total increase of 16.1%.



The largest single expense for SL&P is the purchase of bulk power from SaskPower. The largest component of the Utility's revenue comes from the metered sale of power to our customers. Both of these rates are effectively set by SaskPower since City Council in the past has given direction to SL&P to match SaskPower's retail rates. The rates set by SaskPower therefore have a significant impact on the Utility's finances.

An increase to the ROI is dependent on how much the increase in revenue exceeds the increase in expenses. The August 2010 SaskPower rate increase was favourable to SL&P in that the average retail rate increase (4.5%) exceeded the bulk power rate increase (2.6%). Both ongoing negotiations with SaskPower and submissions made to the Saskatchewan Rate Review Panel are focused on maintaining the net return to the City of Saskatoon. When the bulk power rate increase is less than the average retail rate increase, it is easier to deal with other inflationary cost increases faced by SL&P. This allows the Utility to provide sufficient cash from operations to fund capital expenditures and continue to provide the City of Saskatoon with its ROI.



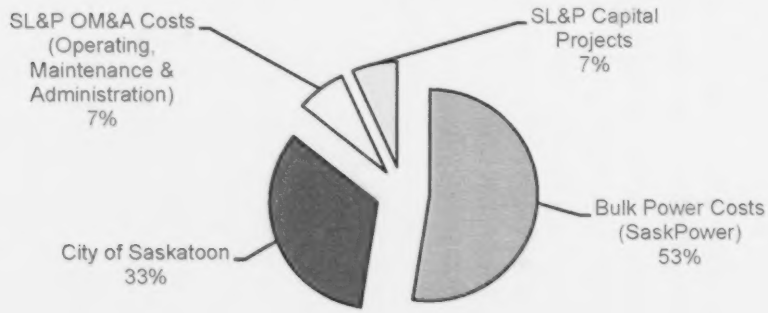
SL&P Revenues

The total revenue received by SL&P in 2010 was $127,871,000. Metered revenue from the sale of electricity accounted for $115,170,000. The remaining revenue came from the amount charged in lieu of the municipal surcharge as well as service connection fees, pole and duct rental contracts, and late payment fees.

Approximately 41% of the revenue received by the Utility came from the sale of power to residential customers, 56% came from the sale to commercial and industrial customers, and 3% came from the provision of services for street lighting.

The following chart shows the breakdown of expenses as a percentage of the total revenue. The City's share includes the ROI, Grants-in-Lieu of taxes, cross charges for the customer billing and collection services provided by the Revenue Branch, and corporate administration charges.

Summary of Expenses
(as a percentage of revenue)


SL&P OM&A Costs (Operating, Maintenance & Administration) 7%
SL&P Capital Projects 7%
Bulk Power Costs (SaskPower) 53%
City of Saskatoon 33%

The following table shows the budgeted and actual revenues and expenses for 2010 as well as the variances for major items.

2010 Operating Budget Variance ($,000)

	Budget	Actual	Variance	%
Metered revenue	$116,119	$114,820	($1,299)	-1.12%
Municipal surcharge	11,612	11,517	(95)	-0.82%
Unbilled revenue	0	351	351	
Other revenue	1,192	1,183	(9)	-0.76%
Total revenue	$128,923	$127,871	($1,052)	-0.82%
Expenses:				
Bulk Power	$ 69,343	$ 67,088	($2,255)	-3.25%
Grants-in-lieu of taxes	17,422	17,280	(142)	-0.82%
Distribution	5,523	6,037	514	9.30%
Street lighting maintenance	877	1,229	352	40.10%
Admin & general	5,254	5,250	(3)	-0.06%
Provision to EDRR	6,007	5,990	(17)	-0.28%
Provision to EDER	2,717	2,739	22	0.80%
Total expense	$107,143	$105,613	($1,530)	-1.43%
Revenue less expense	$ 21,780	$ 22,258	$478	2.19%
(To)/From Stabilization reserve	0	($478)		
Return on Investment	$ 21,780	$ 21,780	$0	0.00%

Overall, revenues in 2010 were $1,052,000 less than budget, which was more than offset by lower than budgeted expenses of $1,530,000. As a result, SL&P was able to provide the City with the budgeted $21,780,000 ROI and transfer $478,000 to SL&P's Stabilization Reserve, which had been depleted at the end of 2009. The Stabilization Reserve is used to help ensure that the City receives its budgeted ROI in future years. However, due to lower metered revenue in 2010, the grants-in-lieu of tax paid to the City was $142,000 less than budget.

The 2010 budget was based on revenue projections assuming a 5% retail rate increase effective June 1st. However, the SaskPower rate increase of 4.5% did not become effective until August 1st. The lower and later rate increase reduced the metered revenue and municipal surcharge components by a total of $1,394,000.

More than offsetting the revenue variance was a variance in the cost of bulk power in the amount of $2,255,000. The budget assumed a 6.78% bulk power rate increase effective June 1st, while SaskPower's actual increase was 2.64% effective August 1st. The lower and later bulk power rate increase by SaskPower had a significant impact on SL&P's financial results.

Distribution expenses exceeded budget by $514,000. Street light maintenance expenses exceeded budget by $352,000.

Key Performance Indicators (KPIs)

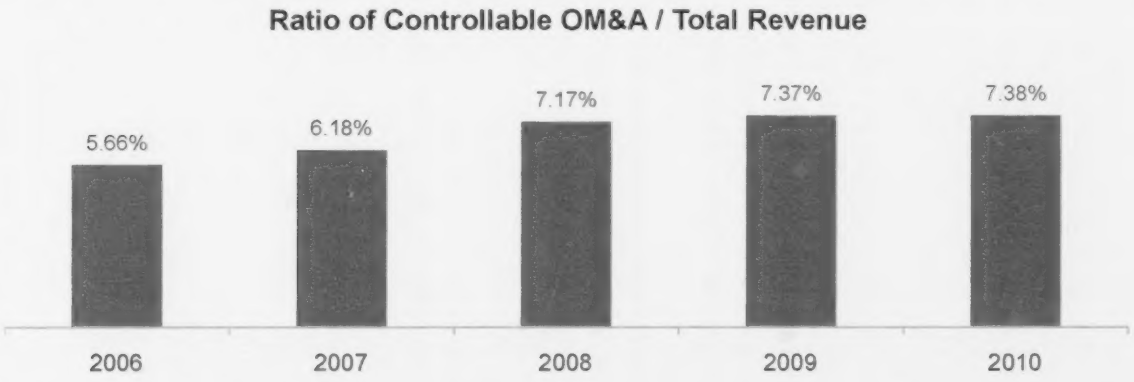
"SL&P is accountable and responsible to prudently spend utility dollars."

Performance is tracked and measured based on the expenses that are directly within the control of the Utility. Operating, maintenance and administration (OM&A) expenses include all distribution system costs, street lighting system maintenance, and administration expenses. For the purpose of the following KPI charts, only controllable OM&A expenses have been included. Therefore, Revenue Branch billing and collections completed on behalf of SL&P, corporate administration charges, and Corporate Information Service costs have been excluded. In 2010, controllable OM&A expenses amounted to $9,437,000 and uncontrollable OM&A expenses amounted to $3,070,000.

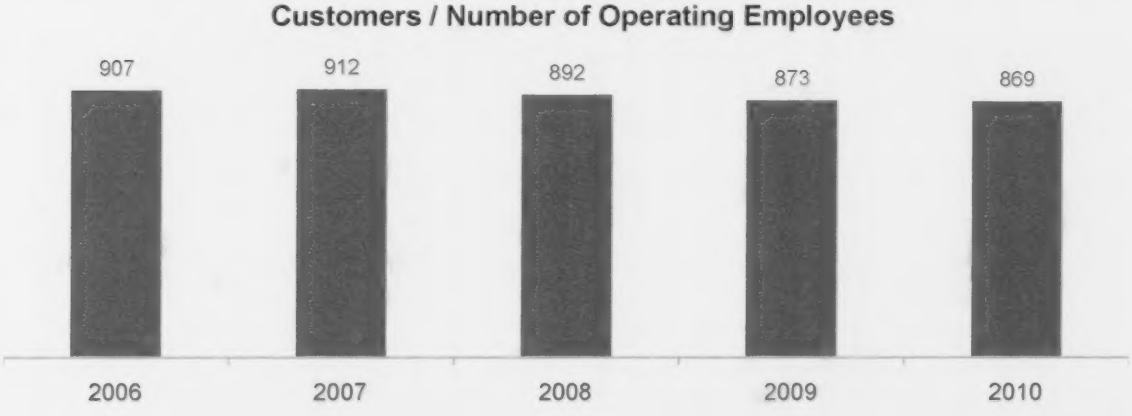
The following chart indicates that controllable costs per customer increased from 2009 to 2010 by 5.6%. While this is an important performance indicator to continue to track in the future, it should be noted that the number of customers within SL&P's franchise area has remained relatively constant for the past several years. During this time period, the number of street lights maintained by the Utility increased by 17.4%.

The Utility's infrastructure has also aged to the point where increased maintenance is necessary to ensure system reliability targets are met. A significant portion of the Utility's assets were originally installed in the 1940's to 1970's and are now in greater demand for maintenance. In order to ensure that the distribution system is efficiently being managed, plans are currently being put in place to implement an asset management system.

The next chart shows the Utility's controllable OM&A costs as a ratio of total revenue. Due to increases in retail rates for power, this ratio has remained nearly the same as the previous year. SL&P's controllable costs accounted for 7.38 cents for every one dollar of revenue in 2010.



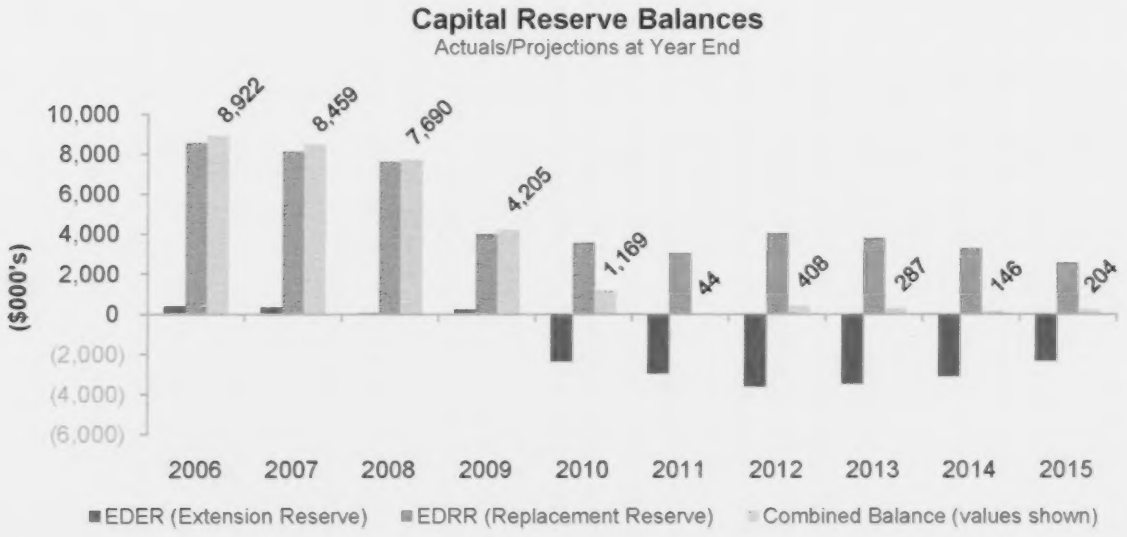
The final performance chart shows the ratio of customers to the number of employees engaged in the operation of the utility. This ratio has fallen slightly since 2007 due to the same reasons mentioned previously. As well, the Utility has been aggressively training apprentices in anticipation of a large number of retirements among journeymen Power Linemen and Power Electricians. SL&P, in a joint process with IBEW Local 319, has also started a program whereby non-trade positions will be converted into trade positions through apprenticeships. This process began in 2007. The final result will allow the Utility to have more qualified and trained tradesmen on staff, which will reduce response times for outages, improve efficiencies in the use of staff and equipment, provide career advancement opportunities for staff, aid in attracting and retaining future staff, and provide superior customer service.



Capital Reserve Sufficiency

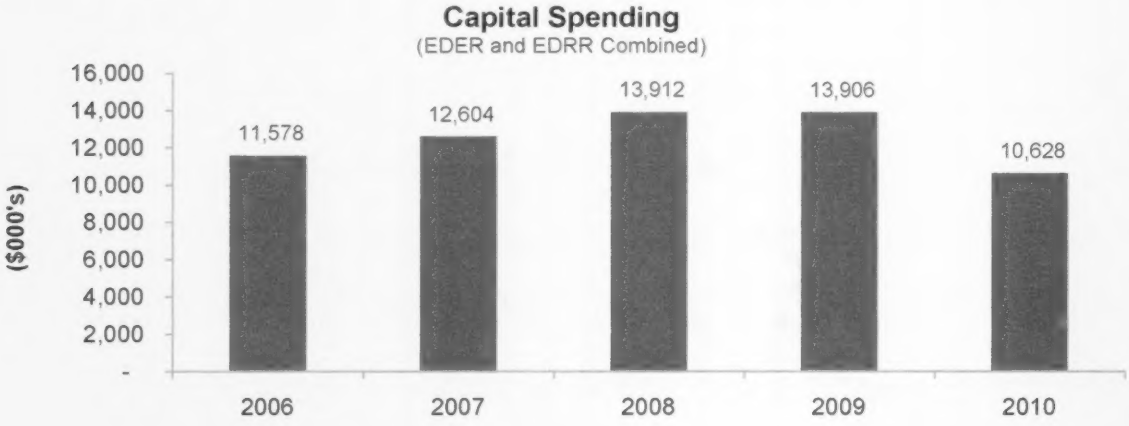
SL&P funds the extension and replacement of its infrastructure through the use of capital reserves: the Electrical Distribution Extension Reserve (EDER); and the Electrical Distribution Replacement Reserve (EDRR). These reserves receive annual provisions from the Utility's operating budget. A review of the sufficiency of these reserves is completed annually to ensure that they will meet the capital expenditures planned in the next 5 years.

The following chart shows the year end balances in these two reserves over the past five years as well as projected balances for the next five years. The combined balance in these reserves is also shown. Either reserve may go into a deficit position as long as the balance of the two remains positive. Based on capital extension demands for the Utility, the extension reserve is projected to be negative for the next five years and the replacement reserve will need to remain in a positive balance in order to maintain an overall positive financial balance.



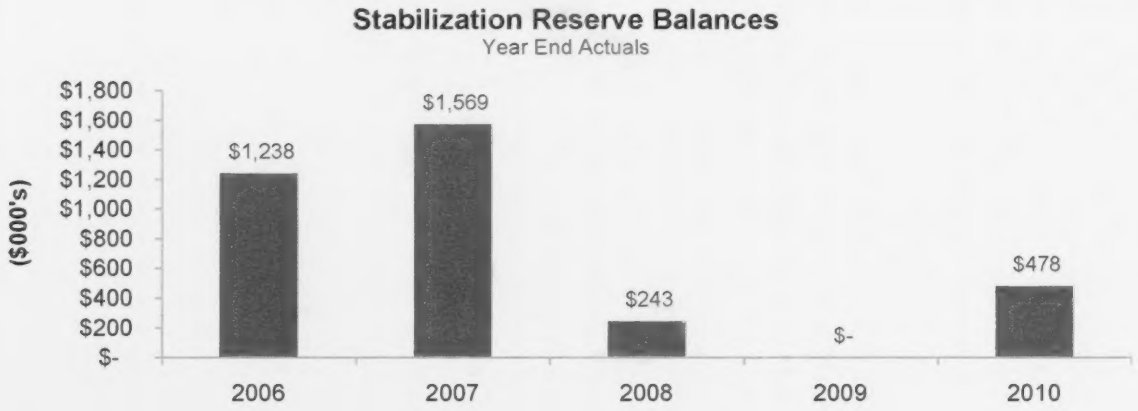
(Year end balances are based on committed costs)

Capital spending over the past five years is shown on the following chart.



In order to guide future financial decisions by SL&P, the Utility has initiated a Capital Development Planning Study in 2011. An external consultant will be hired to assist SL&P in determining strategic investments that will need to be made over the next several years in order to meet both infrastructure renewal and growth demands. The focus of the study will be to complete a condition assessment for the Utility's assets, ensure that SL&P continues to meet or exceed industry standards for service levels and reliability, and maximize the long term return on investment to the City of Saskatoon. Once completed, this study will provide the basis for revising the capital reserve sufficiency analysis. The study is expected to be completed by the end of 2011 and will be in-place in time for the 2013 Capital Budget submission.

SL&P has one additional reserve which is used to smooth out the effects of surpluses and deficits on the operation accounts. The Utility's stabilization reserve removes fluctuations in the annual ROI from variances in revenue and expenses. This reserve is funded from operating surpluses and is reduced in years with operating deficits. The following chart shows the five year historical year end balances in this stabilization reserve.



OUR WORK

One of the Utility's strategic directions is to harness and promote the use of renewable energy sources thereby reducing our reliance on fossil fuels for energy generation.

SL&P currently purchases all of its electricity from SaskPower and distributes this energy to its customers. In order to meet our strategic direction for green power, a number of different alternative energy projects have been proposed. The following provides an overview of these projects.

Green Energy Park

SL&P is working on several initiatives to achieve a diverse and environmentally-sustainable energy system by developing local renewable energy supplies. Several projects are part of a Green Energy Park being developed at the Saskatoon Landfill, including a landfill gas collection system and power generation facility, a Turboexpander power generation facility (with SaskEnergy), and a tall wind turbine. Other initiatives may be considered in the future as alternative energy technologies evolve and financial viability can be demonstrated.

Clustering these projects together at the Saskatoon Landfill will also allow for public educational opportunities to further promote energy conservation and renewable energy solutions.

(Artistic Rendering of the Green Energy Park)

Landfill Gas Power Generation

Decomposing waste within the landfill naturally produces gases that escape into our atmosphere every day. Landfill gas is made up of high concentrations of methane, which is 20 times more harmful in our atmosphere than carbon dioxide. To capture this gas, a collection system consisting of wells and pipes will be installed at the landfill. Once collected, the gas will be used as fuel for internal combustion engines to produce electricity. By capturing and burning the landfill gas, the City will be significantly reducing its greenhouse gas emissions and will be producing clean electricity and reducing our reliance on fossil fuels.

This project has the potential to provide enough power for 2,600 homes, and reduce our greenhouse gas emissions by 93,500 tonnes annually. City Council approved this project in 2010 and design work began in the fall. It is expected that construction will begin in spring 2011 and the system will be operational by the summer of 2012.

Turboexpander

In 2010, City Council approved a second alternative energy project at the Green Energy Park. SL&P, in a joint venture partnership with SaskEnergy Incorporated, will be installing a Turboexpander at SaskEnergy's pressure regulating station near the entrance to the landfill. A

Turboexpander is a small turbine that will reduce high pressure natural gas to a lower pressure for safe distribution to homes and businesses in Saskatoon. In doing this, the turbine creates energy which is used to spin a generator to produce electricity. This project has not been done in the past because heat is required to ensure the gas does not freeze during the expansion process. However, with the development of the Landfill Gas project now underway, the heat by-product from the landfill gas engines will be used in the Turboexpander process. This project will produce power with zero emissions by capturing energy that would otherwise go unused.

This project has the potential to provide enough power for 600 homes, and reduce our greenhouse gas emissions by 4,800 tonnes annually. City Council approved this project in 2010 and design work began in the fall. It is expected that construction will begin in spring 2011 and the system will be operational by the fall of 2012.

Tall Wind Turbine

The third project currently being proposed for the Green Energy Park is a tall wind turbine. This project would be the most visible of the three projects. The turbine would stand at 120 metres from the ground to the tip of the highest point of the turning blades. The blades would capture energy from the wind and spin a generator at the top of the tower to produce electricity.

This project is currently in the feasibility stage and has the potential to provide enough power for 450 homes and reduce our greenhouse gas emissions by 3,500 tonnes annually. If approved by City Council, the wind turbine would be operational by early 2013.

Hydropower Project at the Saskatoon Weir

Located at the site of the Saskatoon Weir, this proposed project would take advantage of the drop in river elevation across the weir to provide low-impact renewable hydropower for Saskatoon. These types of projects have relatively low environmental impact in relation to large-scale hydropower projects and are much more environmentally friendly than coal-burning power plants. This project would also include the construction of a new pedestrian walkway across the river just above the elevation of the water.

The pre-feasibility stage of this project was completed in 2010. If developed, the hydropower station would provide enough power for 1,600 to 4,800 homes, and reduce the City's greenhouse gas emissions by 13,000 to 38,000 tonnes annually. Administration will be bringing forward a further report on the next steps for this project in the second quarter of 2011.

(Artistic Rendering of the Hydropower Project at the Saskatoon Weir – including a potential Whitewater park)

LED Lighting Pilot Project

A proposal to implement light emitting diode (LED) fixtures for the street and pathway lighting in the new Evergreen neighbourhood was approved by City Council in 2010. This large-scale pilot project will showcase this energy efficient technology and will be used to verify the energy savings that can be achieved. Based on the results of the pilot project, SL&P will make the appropriate recommendations to City Council about continued use of these lights city-wide.

IN CONCLUSION

Through its approved 2010 Operating Budget and the approved Five Year Capital Plan including the 2010 Capital Budget, the Utility was able to maintain and upgrade the assets of the Utility and to maintain the Return on Investment that the City has come to depend on to offset property taxes.

The success of the Utility is dependent on the dedication and skills of its employees and their efforts are greatly appreciated. The guidance and support of City Council, the City Manager, and the General Manager of the Utility Services Department, is also acknowledged and appreciated.

The Utility and its staff look forward to the challenges and the opportunities that the future will provide.

Appendix

Background to Saskatoon Light & Power:

The City of Saskatoon, through its electrical utility, has provided electrical service to customers since 1906. The City built the A.L. Cole generating plant in 1912 on the riverbank in downtown Saskatoon to accommodate the rapidly expanding need for electrical energy. In 1928, SaskPower purchased the generating plant and began selling electricity in bulk to the City for distribution to its customers. The A.L. Cole generating plant was then retired in the early 1980's. The Queen Elizabeth Power Station was constructed in 1959 and is still producing power at its location just south of the Saskatoon Landfill.

In the early 1960's, SaskPower continued its expansion and took over many of the municipal utilities in the province, including the City of Regina in 1965. At that time, the City of Saskatoon decided not to sell its electric utility and opted to continue operating it to provide the electrical services to businesses and residents within the 1958 City Franchise Area. This franchise area has not changed significantly with the expansion of the City, and SaskPower serves most areas outside the 1958 City Franchise Area.

In December 2004, City Council approved Saskatoon Light & Power (SL&P) as the new name for the City's electric utility. Saskatoon Light & Power is the largest municipal utility in the province and SaskPower's largest single customer.

SASKATOON LIGHT & POWER

UTILITY SERVICE AREA MAP